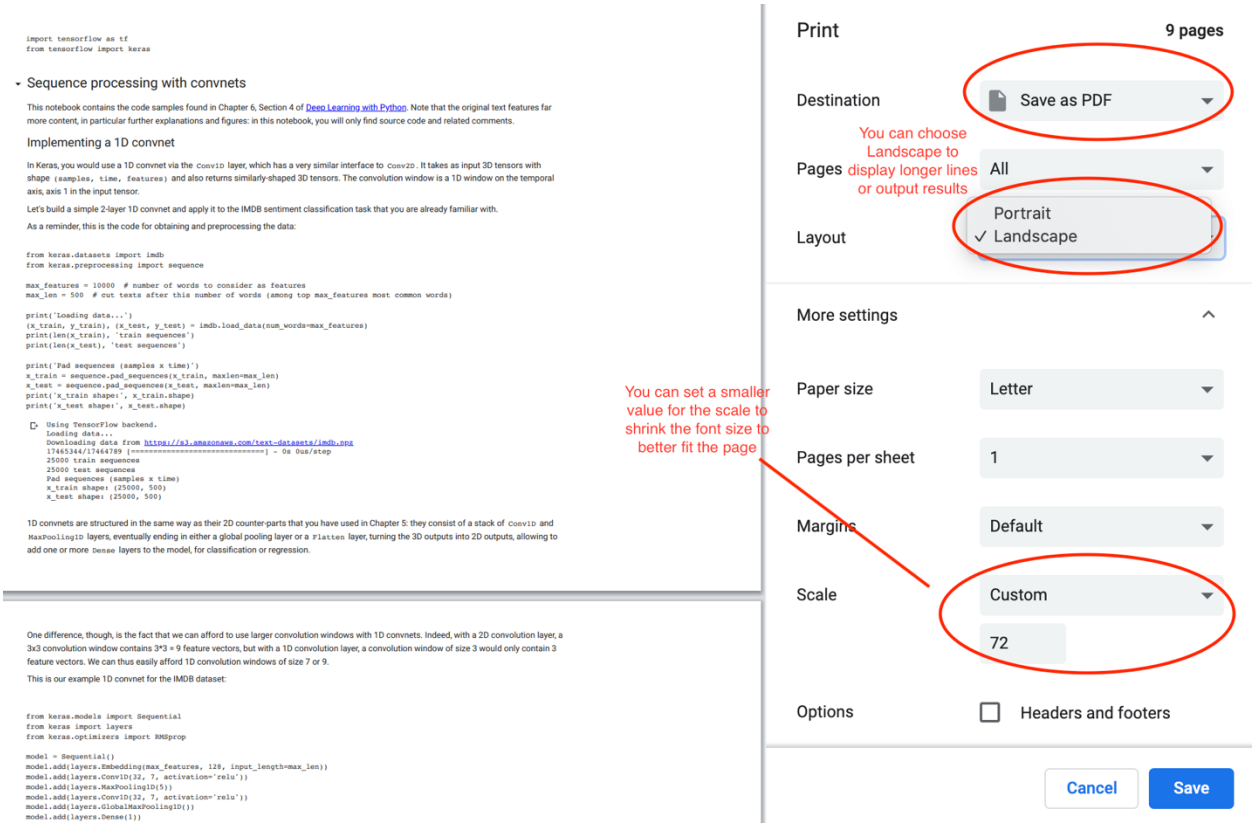
IS 6733 – Homework Submission Instructions

As stated in the syllabus, you need to submit both a PDF file of your Colab notebook codes and outputs and a shared link to your colab code for the homework assignments.

1. PDF file from your Colab code and output

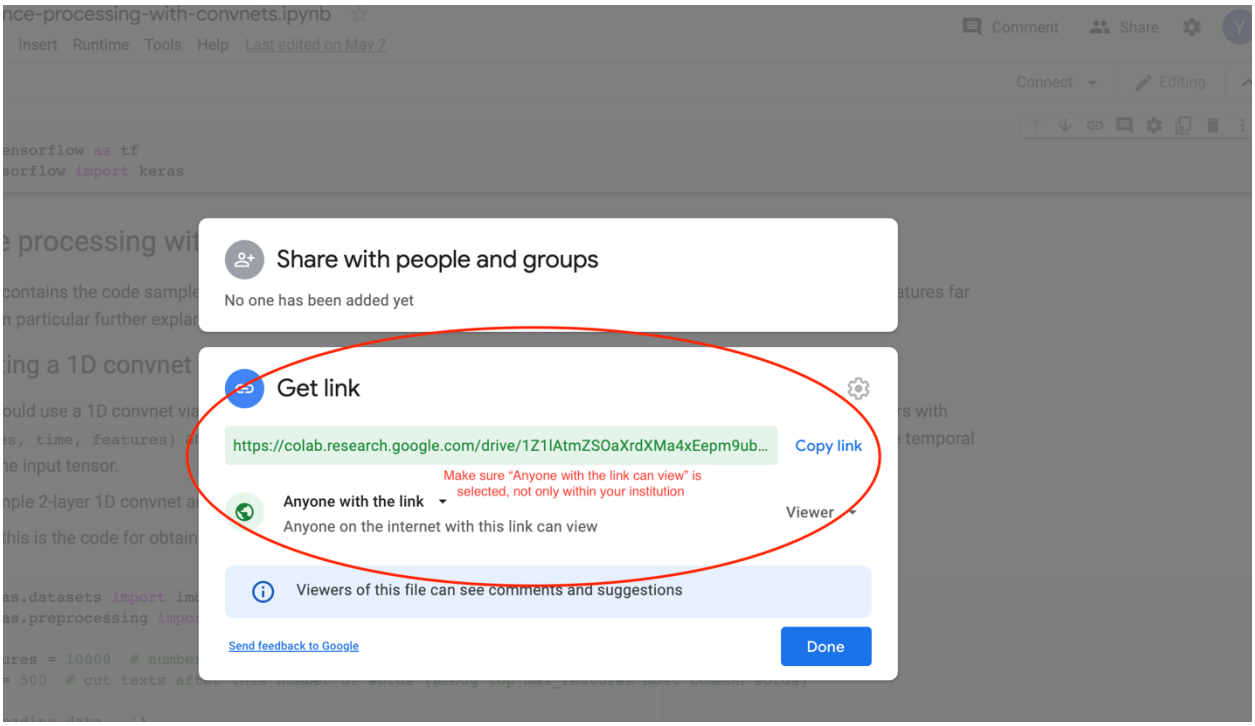
Go the Colab "File" tab, select "Print", then in the destination, choose "Save as PDF". There are multiple configurations you can set to make your file to better display as shown here:



Make sure all your major code lines are displayed correctly by choosing the "Scale" and "Layout". If you cannot find the "Save as PDF" option in your browser, you may want to install the free Adobe Reader software.

2. Shared link to your Colab code and output

To get a sharable link from Colab, you need to first find the "Share" option on the top right of the colab page, and then get the shared link as shown below:

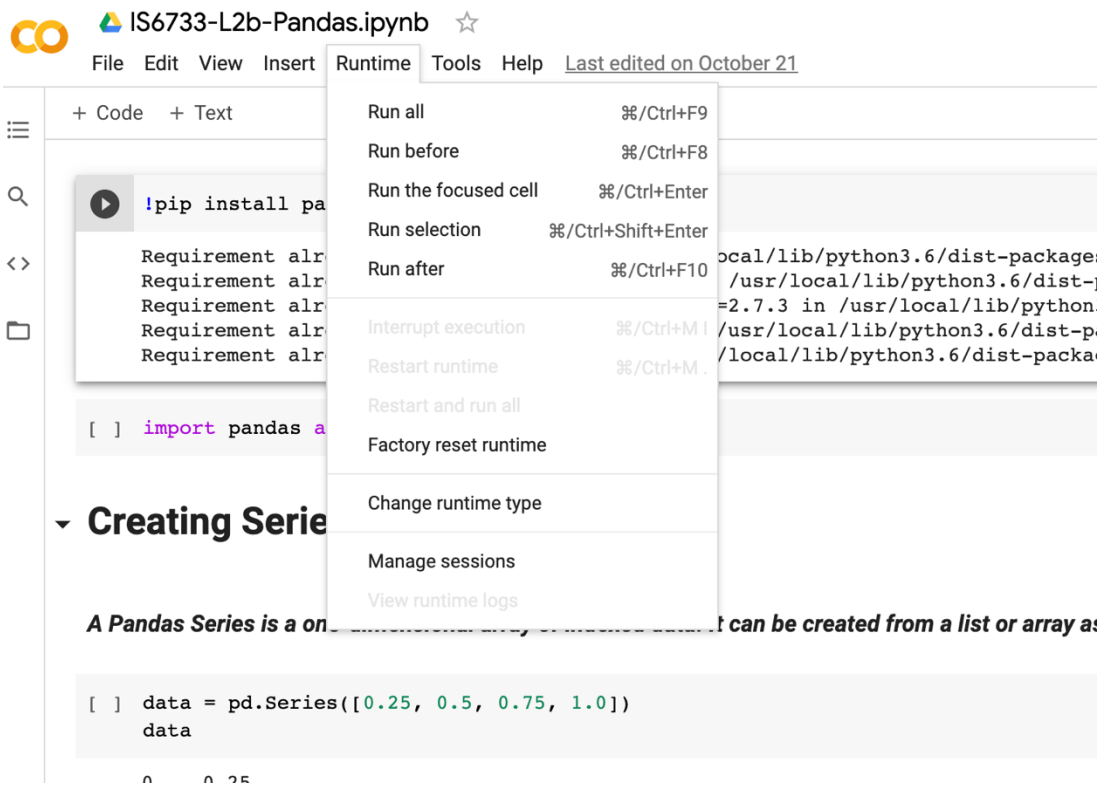


Do not directly copy the URL link from your web browser as that will not work. Moreover, you need to change the access right to "Anyone with the link can view", not "Anyone at the UTSA with the link can view" (This is a common mistake if you create the Gmail account using your UTSA email).

3. GPU use in Colab

When introducing Colab before, we mentioned that its key advantage is the free GPU.
Using GPU is necessary for most deep learning codes as the computation workload is very high. Therefore, when running the deep learning codes given in the lectures as well as doing your homework, you will want to use the GPU to speed up the training process.

The instruction for using GPU in Colab is re-attached here for your information. (runtime --> change runtime type --> GPU). Keep in mind that this is a free and shared service, meaning that sometimes it is very fast and other times it could be slow.


IS6733-L2b-Pandas.ipynb
File Edit View Insert Runtime Tools Help Last edited on October 21
+ Code + Text
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Run before ⌘/Ctrl+F8
Run the focused cell ⌘/Ctrl+Enter
Run selection ⌘/Ctrl+Shift+Enter
Run after ⌘/Ctrl+F10
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Factory reset runtime
Change runtime type
Manage sessions
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!pip install pa
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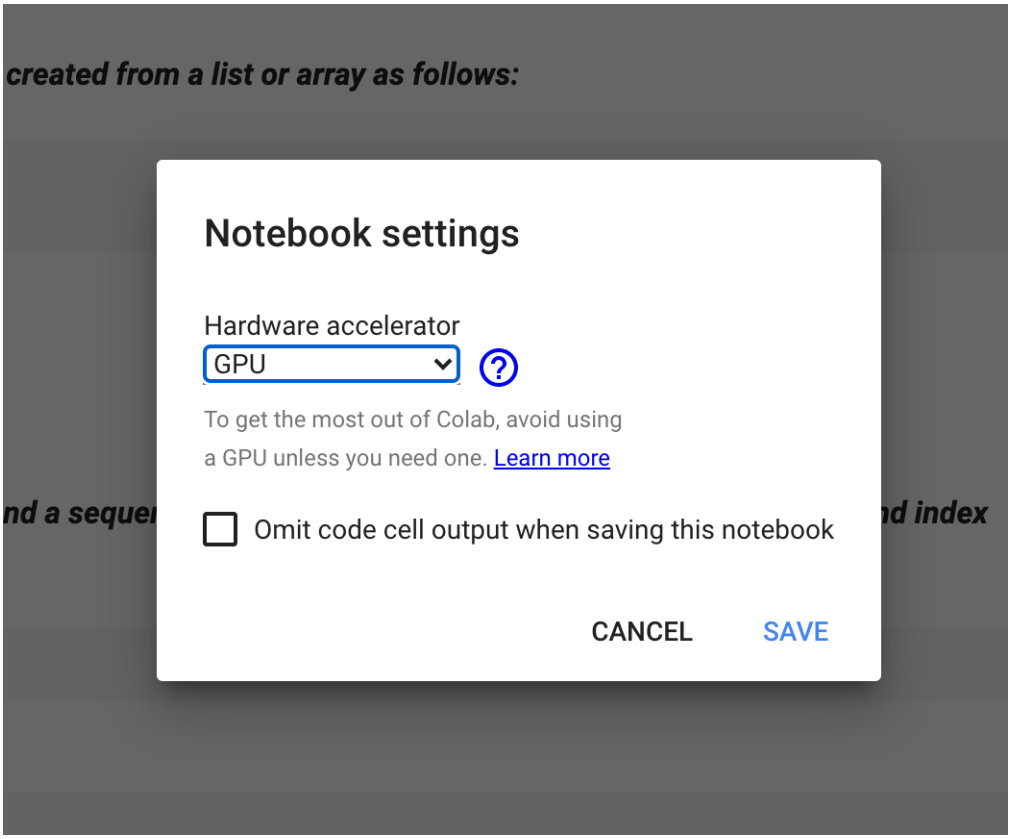
[ ] data = pd.Series([0.25, 0.5, 0.75, 1.0])
data


created from a list or array as follows:
Notebook settings
Hardware accelerator
GPU
To get the most out of Colab, avoid using
a GPU unless you need one. Learn more
Omit code cell output when saving this notebook
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SAVE
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nd index

Here are some additional good practices:

1. In Colab, please use a separate code cell for addressing each subquestion and displaying the output result. You can observe the step-by-step result as you analyze the data and correct some potential mistakes early. This feature is actually the key advantage of Colab/Jupyter Notebook compared to other Python editors (e.g., VS Code and PyCharm). Also, in terms of generating PDF file in Colab, this will make your PDF file much clearer.

2. Make sure your code is executable on Colab. Some of you write the code locally, but after uploading it to Colab, it might not work due to some file path issues. The best way is to write the code directly on Colab and use URL to fetch the data instead of local file path. Furthermore, you will see in the future lectures that when we run some deep learning codes, the free GPU on Colab will greatly speed up the training process compared to your laptop. So you will want to use Colab if you do not have a powerful deep learning workstation.